

REPLACEMENT AMENDMENT TO THE CLAIMS

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1. (currently amended) A palletizer comprising:  
an infeed conveyor delivering serially items for palletizing;  
a row conveyor receiving selected ones of said items as a horizontally disposed row from  
said infeed conveyor; and  
10 a layer head receiving selected ones of said items as a said horizontally disposed row  
from said row conveyor, said row conveyor and said layer head being reciprocated vertically and  
independently.

2. (original) A palletizer according to claim 1 wherein said layer head occupies a space  
15 vertically above at least one of a pallet and a stack of layers on a pallet and discharges a layer of  
items through a floor thereof.

3. (original) A palletizer according to claim 2 wherein said floor of said layer head  
comprises a set of free rollers spanning a pair of chains, said rollers being movable between a  
20 floor position and an open position, said open position allowing a layer to drop through a plane  
corresponding to said floor position.

4. (original) A palletizer according to claim 3 wherein said layer head includes at least  
one upward facing support surface adjacent said rollers when said rollers are positioned in said  
25 floor position.

5. (original) A palletizer according to claim 1 wherein said layer head includes a pivoting  
dead plate, said dead plate being movable between a generally horizontal position facilitating

transfer of a row of items from said row conveyor and a clamping position engaging for compression a layer of said items on said layer head.

5 6. (original) A palletizer according to claim 1 wherein said layer head includes a pair of side clamps movable inward and toward one another to engage for compression a layer of said items resting on said layer head.

10 7. (original) A palletizer according to claim 1 wherein said layer head includes a layer conditioning mechanism compressing together a layer of items resting thereon in at least first and second dimensions.

8. (original) A palletizer according to claim 7 wherein said first and second dimensions are mutually orthogonal dimensions.

15 9. (original) A palletizer according to claim 1 wherein said layer head includes a pair of chains maintained in a generally L-shaped path and carrying thereacross and along corresponding segments thereof a set of free rollers, said rollers occupying a floor position when located along a horizontal portion of said L-shaped path and occupying an open position when located along a vertical portion of said L-shaped path.

20 10. (original) A palletizer according to claim 1 wherein said layer head includes a set of free rollers movable between a floor position and an open position, said rollers having a length corresponding to a tightly-packed layer resting thereon when said rollers are in said floor position and dropping said layer through a plane containing said floor position when moved to  
25 said open position.

11. (original) A palletizer according to claim 10 wherein said layer head comprises a pair of upward facing support surfaces at respective ends of said rollers when located at said floor position.

12. (currently amended) A method of palletizing comprising:

receiving serially items for palletization;

locating selected ones of said items row-by-row on a vertically reciprocating row

5 conveyor;

moving said row conveyor to a height coincident with a layer head;

transferring laterally a row of said items from said row conveyor to said layer head while

constructing a layer of horizontally disposed rows on said layer head; and

dropping through a floor of said layer head a layer of said items onto at least one of a  
10 pallet and a stack of layers resting on said pallet therebelow.

13. (original) A method according to claim 12 wherein said method further comprises  
conditioning by compressing a layer of said items as constructed on said layer head from a  
loosely packed layer into a tightly packed layer prior to dropping said layer through said layer  
15 head.

14. (original) A method according to claim 12 wherein said step of dropping comprises  
moving from a supporting position below said layer a set of rollers to withdraw support thereof  
and allow said layer to drop vertically through said layer head.  
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